

Filtered Arrays

XD... Type



FEATURES

- To be used beneath a connector
- Provide an EMI filtered signal line between electronic modules
- Effective insertion loss from 1MHz up to ~ 1GHz
- Surface mount compatible

HOW TO ORDER

| XD | 06 | Z | F | 0153 | K | -- |
|------------------------|-------------------------------|------------------------------------|---|---|--|--|
| AVX Style XD | Size 03 06 07 | Class C = NP0 Z = X7R | Voltage E = 100 F = 200 J = 500 | Capacitance EIA code on 3 or 4 digits | Tolerance J = 5% K = 10% M = 20% | Packaging -- = Bulk xx = Tape & Reel |

STYLE & DIMENSIONS

| millimeters (inches) | | | | | | | |
|----------------------|------------------------|---|-----------------|--------------------------------|---------------------------------|----------------|-----------------------|
| | TYPES | L | P | D | d | bm maxi | Thickness maxi |
| | XD07 (4 capacitors) | 7.00 ± 0.15 (0.275 ± 0.006) | 2.54 (0.100) | 1.70 ± 0.15 (0.067 ± 0.006) | 1.00 ± 0.10 (0.039 ± 0.0039) | 0.3 | 2mm |
| | XD06 (4 capacitors) | 6.00 ± 0.15 (0.236 ± 0.006) | 2.54 (0.100) | 1.70 ± 0.15 (0.067 ± 0.006) | 1.00 ± 0.10 (0.039 ± 0.0039) | 0.3 | 2mm |
| | XD03 (2 capacitors) | 6.00 x 3.00 ± 0.15 (0.236 x 0.118 ± 0.006) | 2.54 (0.100) | 1.70 ± 0.15 (0.067 ± 0.006) | 1.0 ± 0.10 (0.039 ± 0.0039) | 0.3 | 1.5mm |

Terminations: Silver – Palladium – Platinum, on 4 or only 2 sides of the array

CAPACITANCE vs VOLTAGE TABLE

| Cap. Range (each cap.) | X7R | | NP0 | |
|---------------------------|--------------|--------------|----------------|---------------|
| | 200VDC | 500VDC | 200VDC | 500VDC |
| XD07... | 33nF → 120nF | 4.7nF → 18nF | 470pF → 1500pF | 220pF → 620pF |
| XD06... | 15nF → 68nF | 2.2nF → 10nF | 220pF → 750pF | 120pF → 330pF |
| XD03... | 8.2nF → 39nF | 1nF → 4.7nF | 180pF → 390pF | 82pF → 180pF |

ELECTRICAL CHARACTERISTICS

| | | |
|----------------------------|---|--------------------------------------|
| Dielectric Class | X7R | NP0 |
| Temperature Coefficient | $\Delta C/C \leq \pm 15\%$ (-55 +125°C) | 0 ± 30ppm/°C |
| Climatic Category | 55 / 125 / 56 | 55 / 125 / 56 |
| Rated Voltage (U_R) | 200 VDC | 500VDC |
| Test Voltage (U_e) | 2 x U_R | 1.5 x U_R |
| Tangent of Loss Angle - DF | $\text{tg } \delta \leq 250(10^{-4})$ | $\text{tg } \delta \leq 15(10^{-4})$ |
| Insulation Resistance | $C \leq 10\text{nF} = R_i \geq 100 \text{ G}\Omega$ $C > 10\text{nF} = R_i \times C \geq 1000\text{s}$ | $R_i \geq 100 \text{ G}\Omega$ |